

THE JOINT LABOR SUPPLY DECISION OF MARRIED COUPLES AND THE SOCIAL SECURITY PENSION SYSTEM

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The current Old-Age and Survivors Insurance (OASI) program of the U.S. Social Security system redistributes resources from high-wage workers to low-wage workers and from two-earner couples to one-earner couples. Due to computational difficulty, however, most previous literature on the dynamic general-equilibrium analyses of Social Security does not explicitly consider the redistribution between one-earner and two-earner households. The lack of spousal and survivors benefits in the model economy potentially underestimates the labor supply distortion of the OASI payroll tax. In an economy with these benefits, the secondary earners consider a larger portion of their payroll tax payments to be labor income taxes rather than pension contributions, and the after-tax wage elasticity of the secondary earners' labor supply is in general much higher.

The present paper extends a standard dynamic general-equilibrium overlapping-generations (OLG) model with heterogeneous households and incomplete markets by implementing the joint labor supply decision of married couples; calibrates the model to the 2009 U.S. economy with spousal and survivors benefits; and analyzes to what extent the current spousal and survivors benefits possibly distort the labor supply decision of married households and whether the government can improve the social welfare without significantly reducing the insurance aspect of the current Social Security OASI program.

In the model economy, households are heterogeneous with respect to their marital status (married, widowed, or widower), age, wealth, husband's market wage rate, wife's market wage rate, the husband's average historical earnings, and the wife's average historical earnings. In each period, which is a year, a working-age household receives individual market wage shocks (one for the husband and another for the wife) and jointly chooses the optimal consumption, market work hours, and end-of-period wealth to maximize their rest of lifetime utility, taking factor prices and government policy schedule as given.

The present paper first constructs a baseline economy, which is on the balanced growth path, with the current OASI system with spousal and survivors benefits, and it checks whether the model economy matches the U.S. economy in terms of the shares of elderly women by type of OASI benefits — worker's own benefits, spousal benefits, and survivors benefits received by widows. Then, it assumes a 40-year cohort-by-cohort gradual removal of spousal and survivors benefits and solves the model for a steady-state equilibrium and an equilibrium transition path under several different government financing assumptions. Regarding the OASI budget, the paper assumes that it is separated from the rest of the government budget and that workers' own benefits are increased proportionally by keeping the payroll tax rate at the same level.

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The main findings of the present paper are as follows: By removing spousal and survivors benefits from the current OASI system, the market work hours of women would increase by 4.3–4.9% in the long run, depending on the government financing assumption: increasing government consumption (waste), increasing lump-sum transfers, or cutting marginal income tax rates. The market work hours of men would increase only by 0.0–0.4%. Total labor supply in efficiency units would increase by 0.8–1.1% and total output (GDP) would also increase by 1.1–1.5% in the long run. The macroeconomic effect would be largest if the government cut the marginal income tax rates and smallest if it increased transfer spending instead to balance the budget.

If the increased tax revenue due to the policy change was redistributed to households by increasing lump-sum transfers, the welfare effect of the policy change would be largest. Under this financing assumption, the phased-in removal of spousal and survivors benefits would make all current and future age cohorts on average better off. If the increased tax revenue was reimbursed by cutting marginal income tax rates, however, young households at the time of policy change and households in the near future would be slightly worse off. Age 21 newborn households would be better off on average by 0.3–0.8% in the long run with the consumption equivalence measure.

To the best of my knowledge, few papers have analyzed the effect of spousal and survivors benefits on the labor supply of married households, as well as on the macro economy and social welfare, by using a large-scale dynamic general equilibrium OLG model. Kaygusuz (2008) is probably the first and only paper that constructs a heterogeneous-agent deterministic OLG model to explicitly analyze the effect of spousal benefits. The present paper is different from Kaygusuz's in several aspects: it assumes uninsurable idiosyncratic wage shocks in the model economy, analyzes both spousal and survivors benefits, and solves the model for an equilibrium transition path to check if the removal of these benefits are welfare improving even in the short run.

Through the policy experiments, the present paper has shown to what extent the removal of spousal and survivors benefits would likely increase the labor supply of married couples and improve the welfare of heterogeneous households. The model developed in this paper would also predict the effects of changes in fiscal policy and technology. The questions the model could answer include how much female labor supply would increase when the wage disparity between men and women is reduced; when private firms change their policy on health insurance coverage; when the government subsidizes the cost of daycare services, and so on. An extended version of the model would also help in designing the optimal benefit schedule of the Social Security OASI program.

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